

FIG. 1

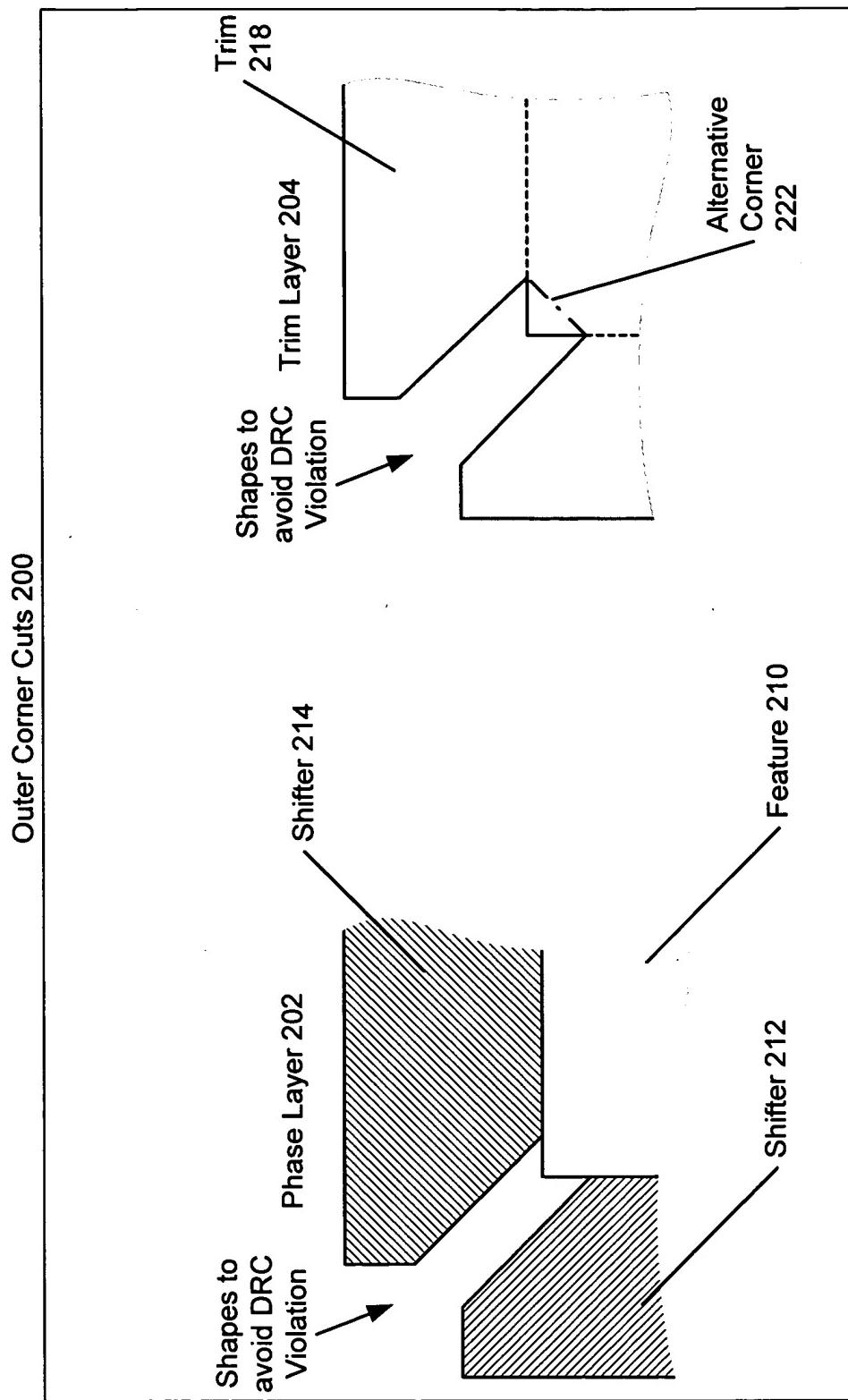


FIG. 2

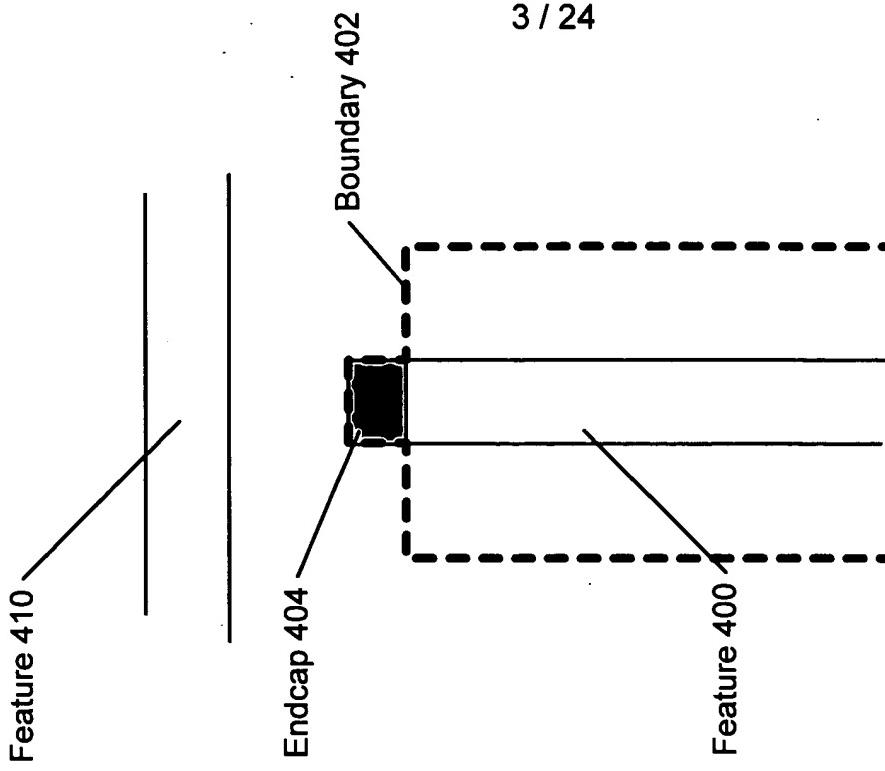


FIG. 4

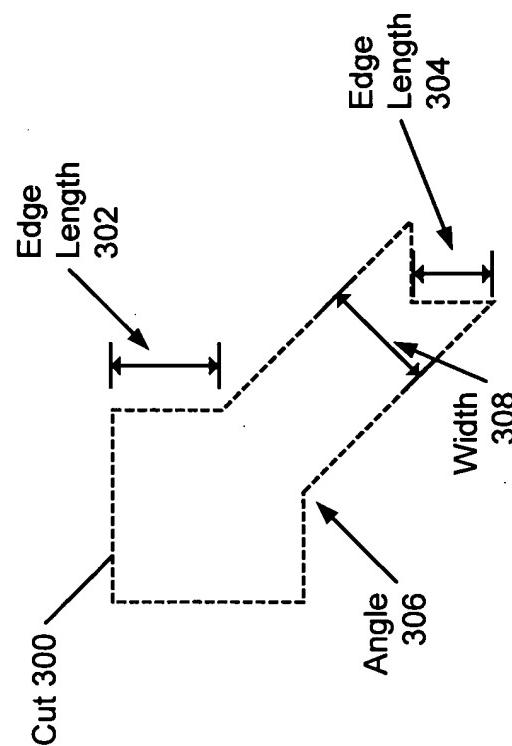
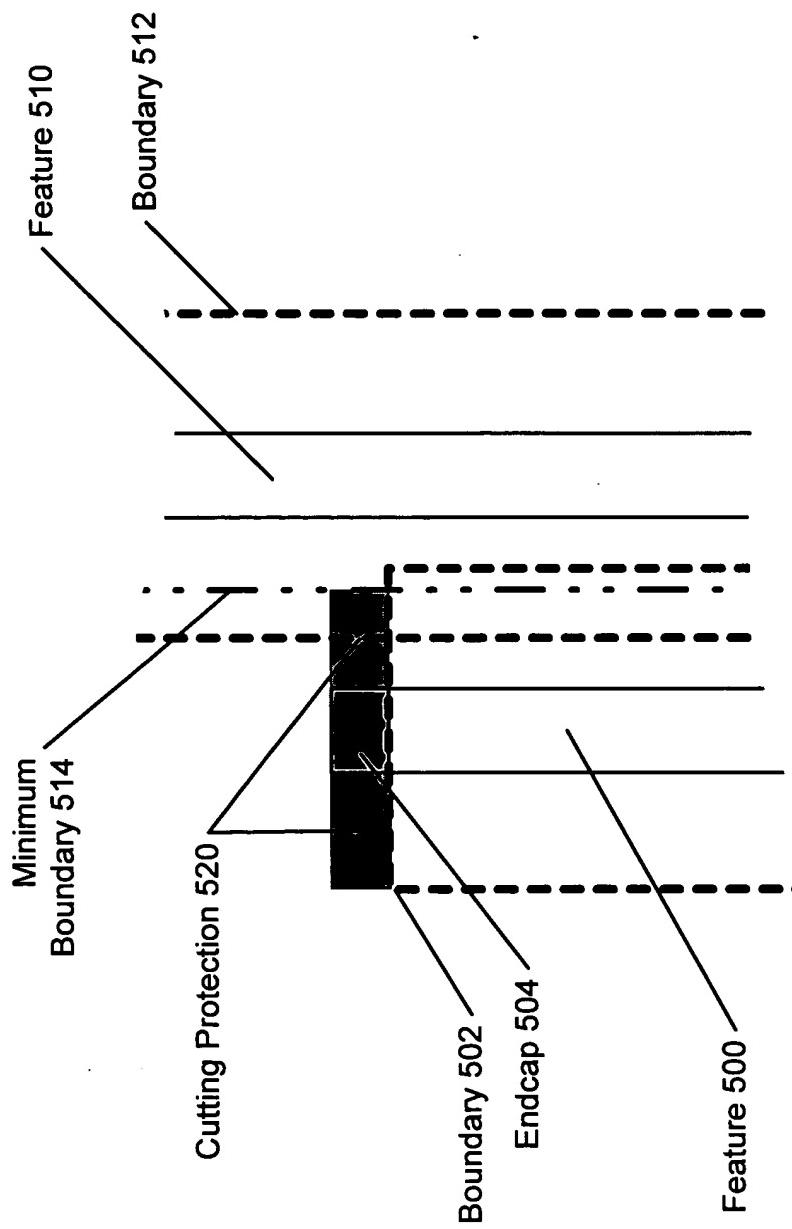


FIG. 3

FIG. 5



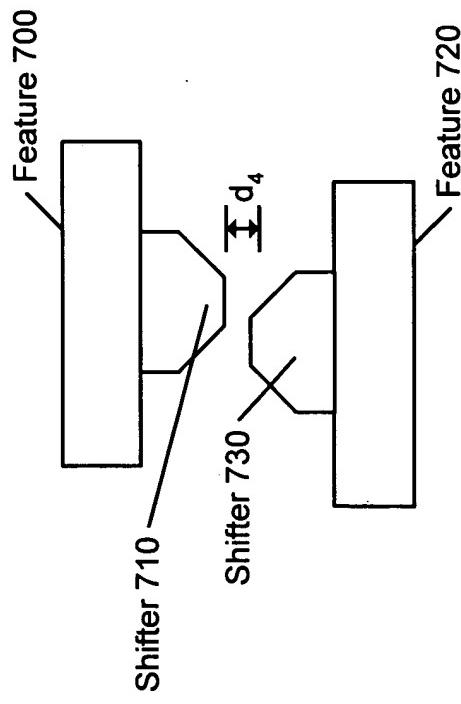


FIG. 7

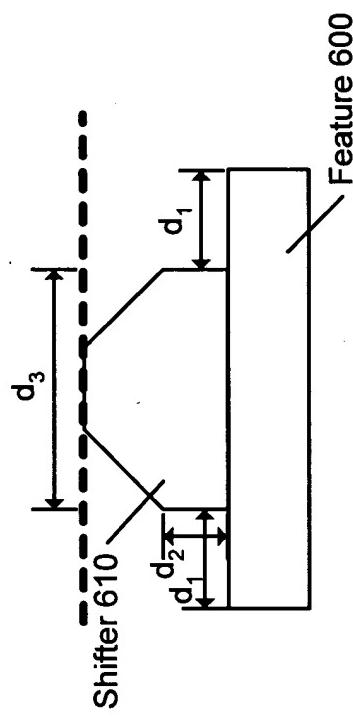


FIG. 6

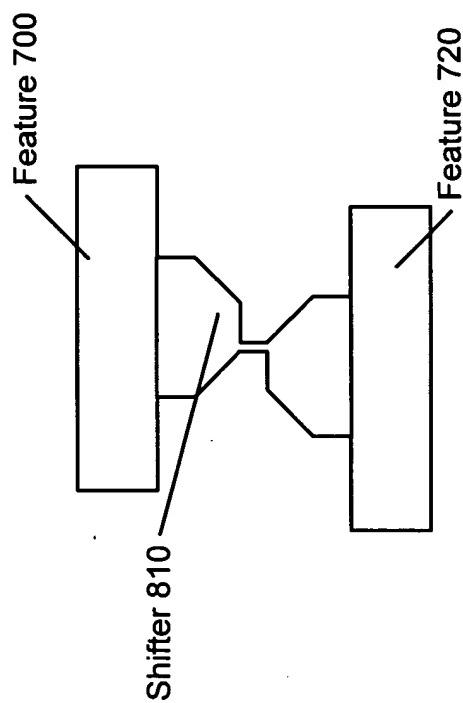


FIG. 8

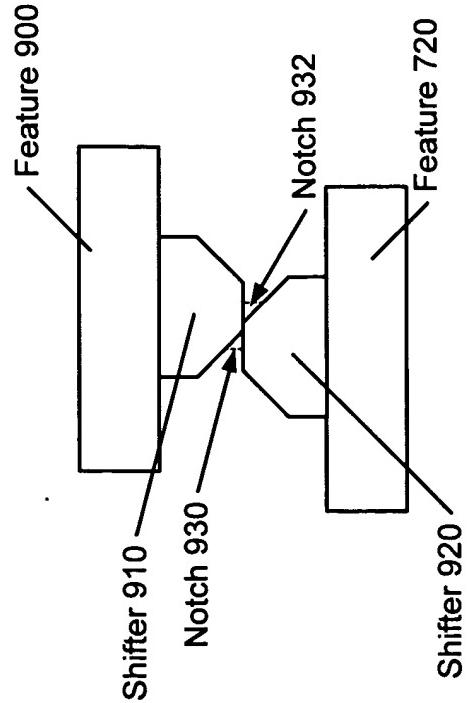


FIG. 9

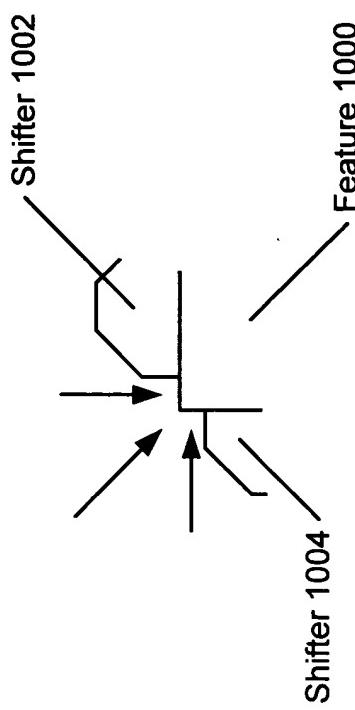
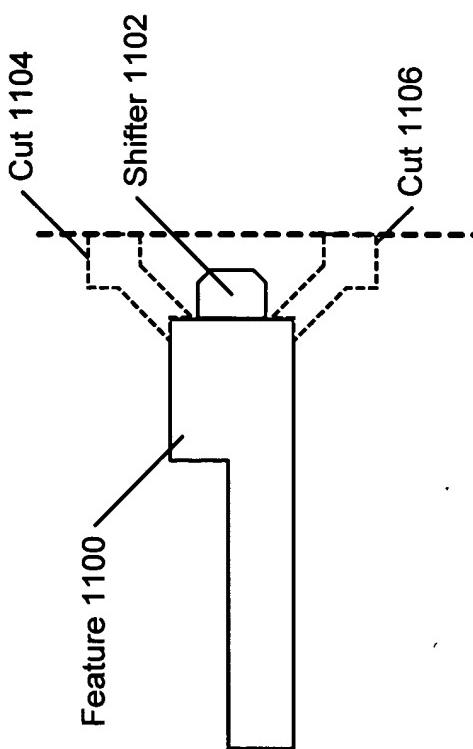


FIG. 10

FIG. 11

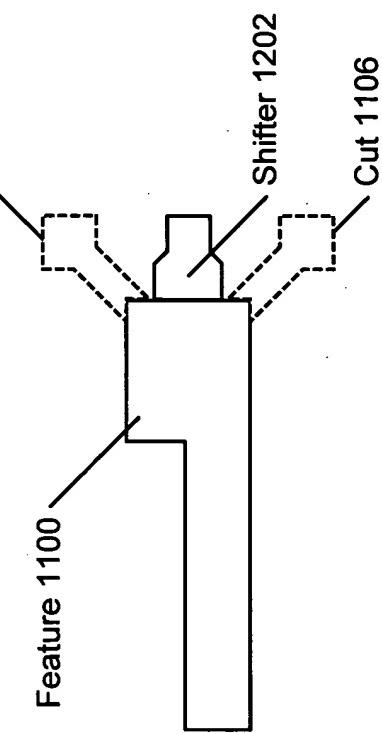


FIG. 12

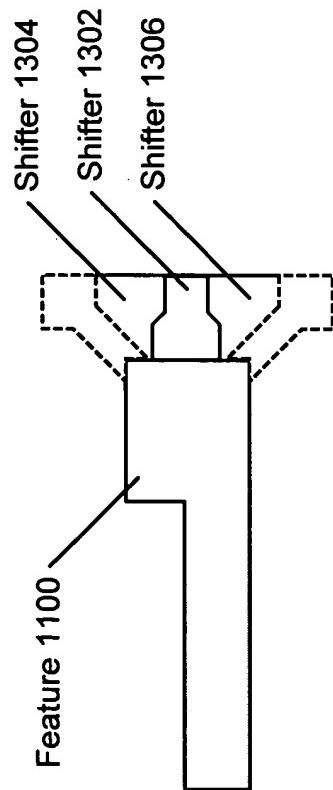


FIG. 13

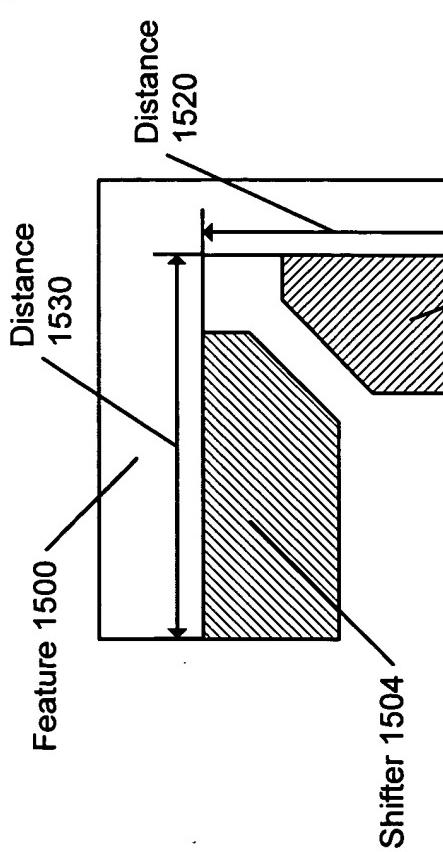


FIG. 14

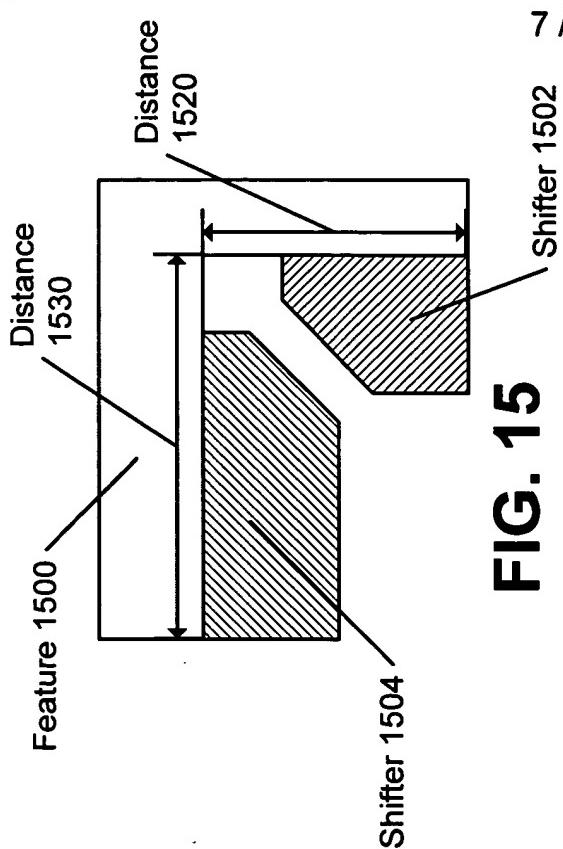


FIG. 15

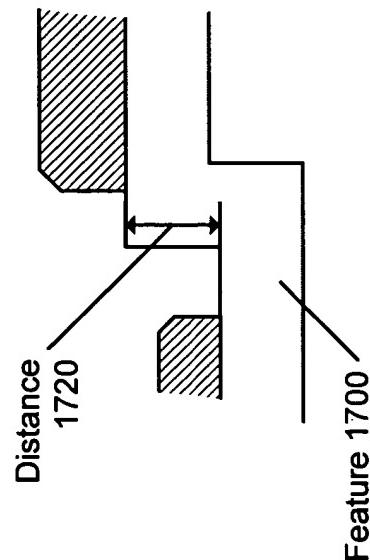


FIG. 16



FIG. 17

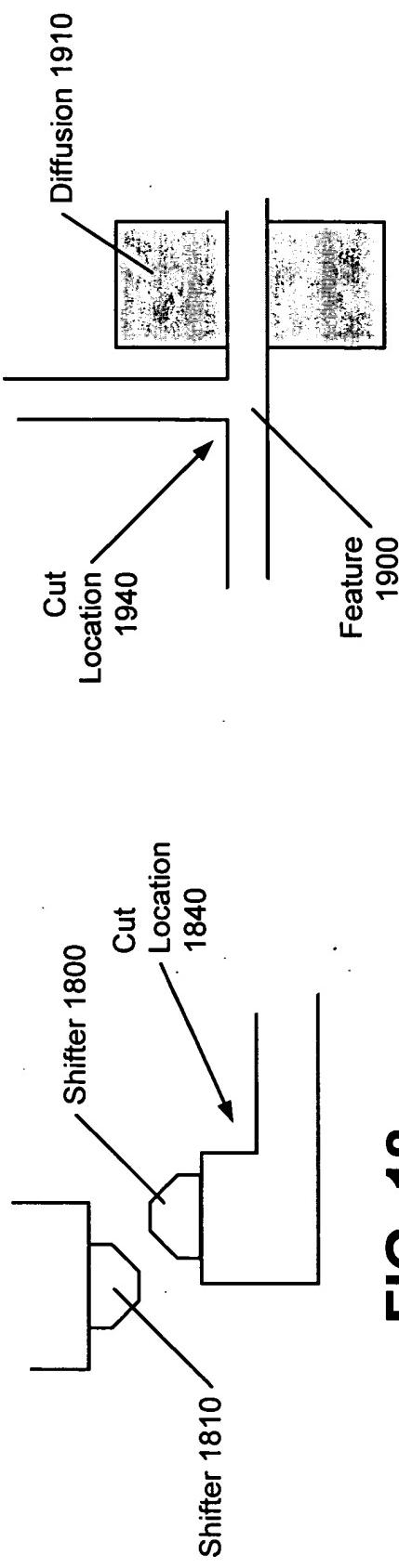


FIG. 18

FIG. 19

Feature 1900

Diffusion 1910

Cut Location 1940

Cut Location 1840

Shifter 1800

Shifter 1810

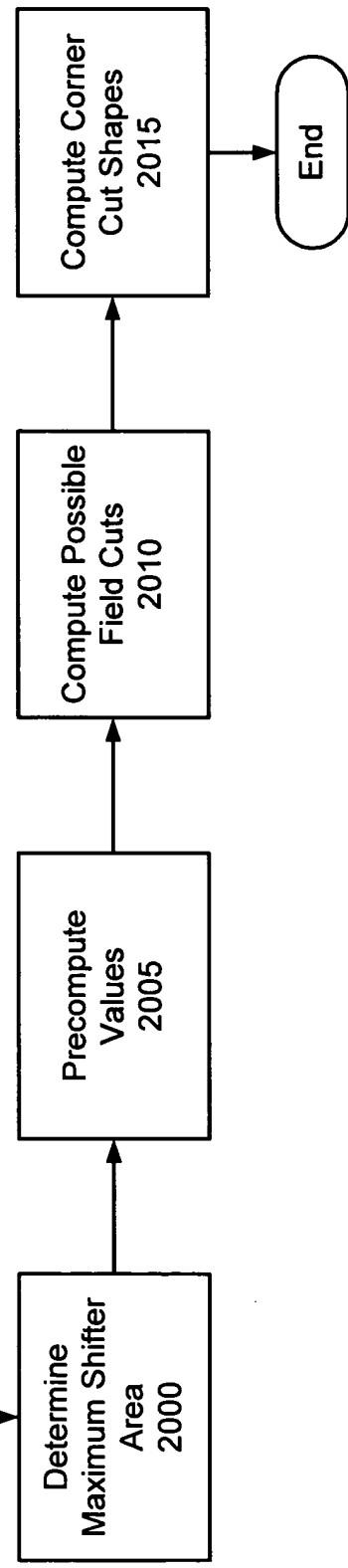


FIG. 20

Layout 2100

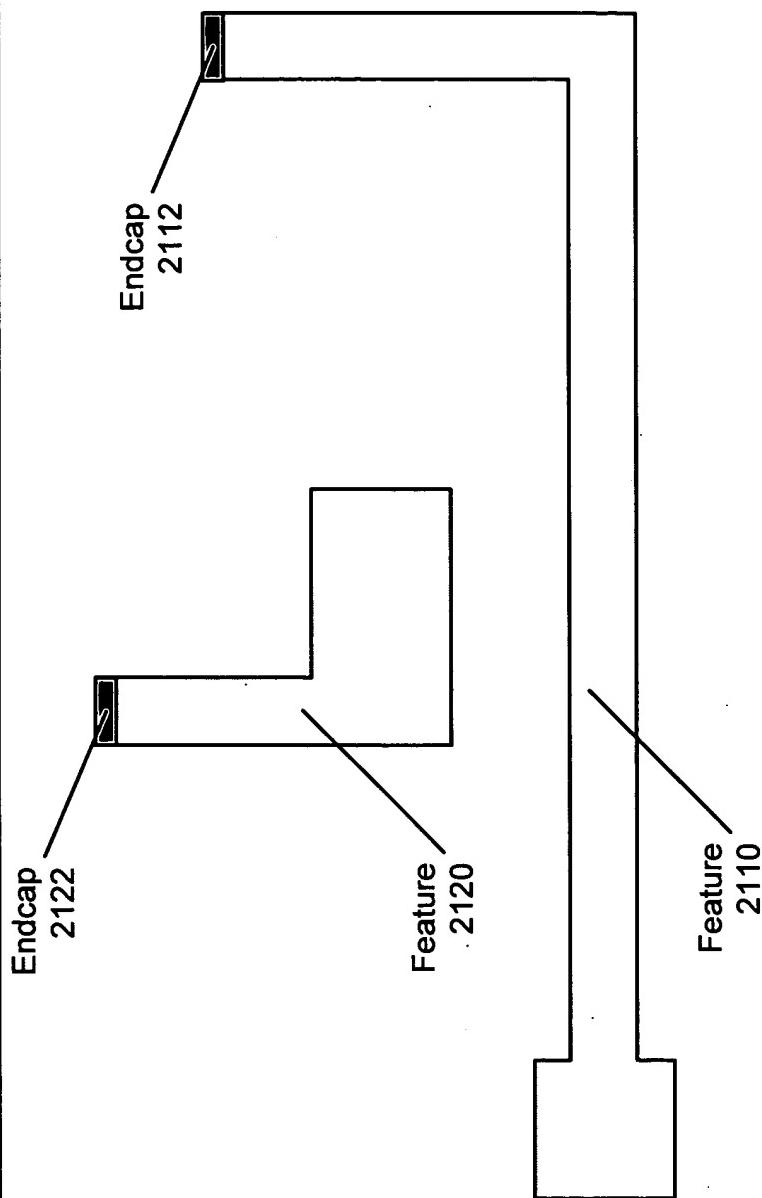


FIG. 21

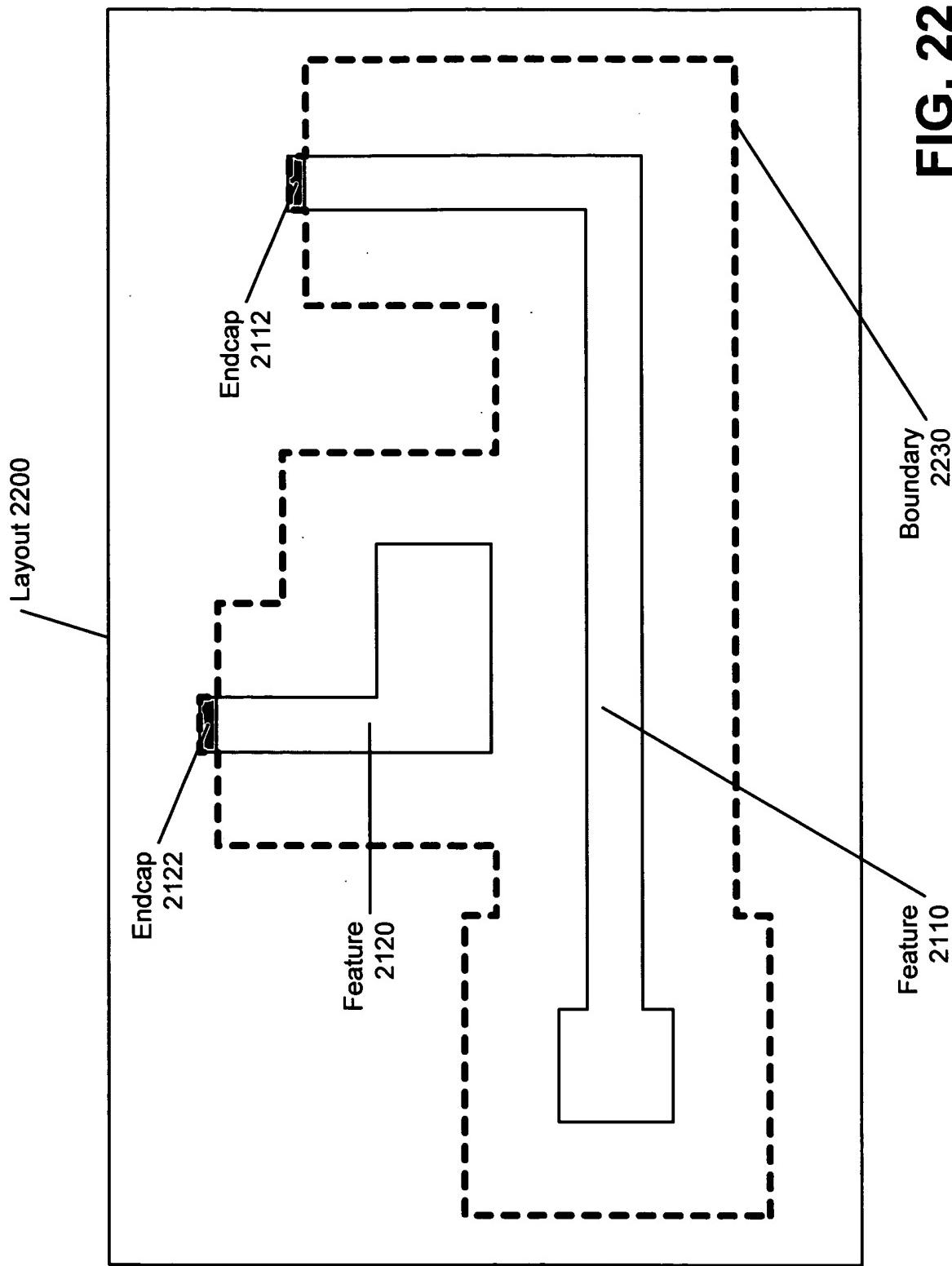


FIG. 22

Layout 2300

Cut 2310

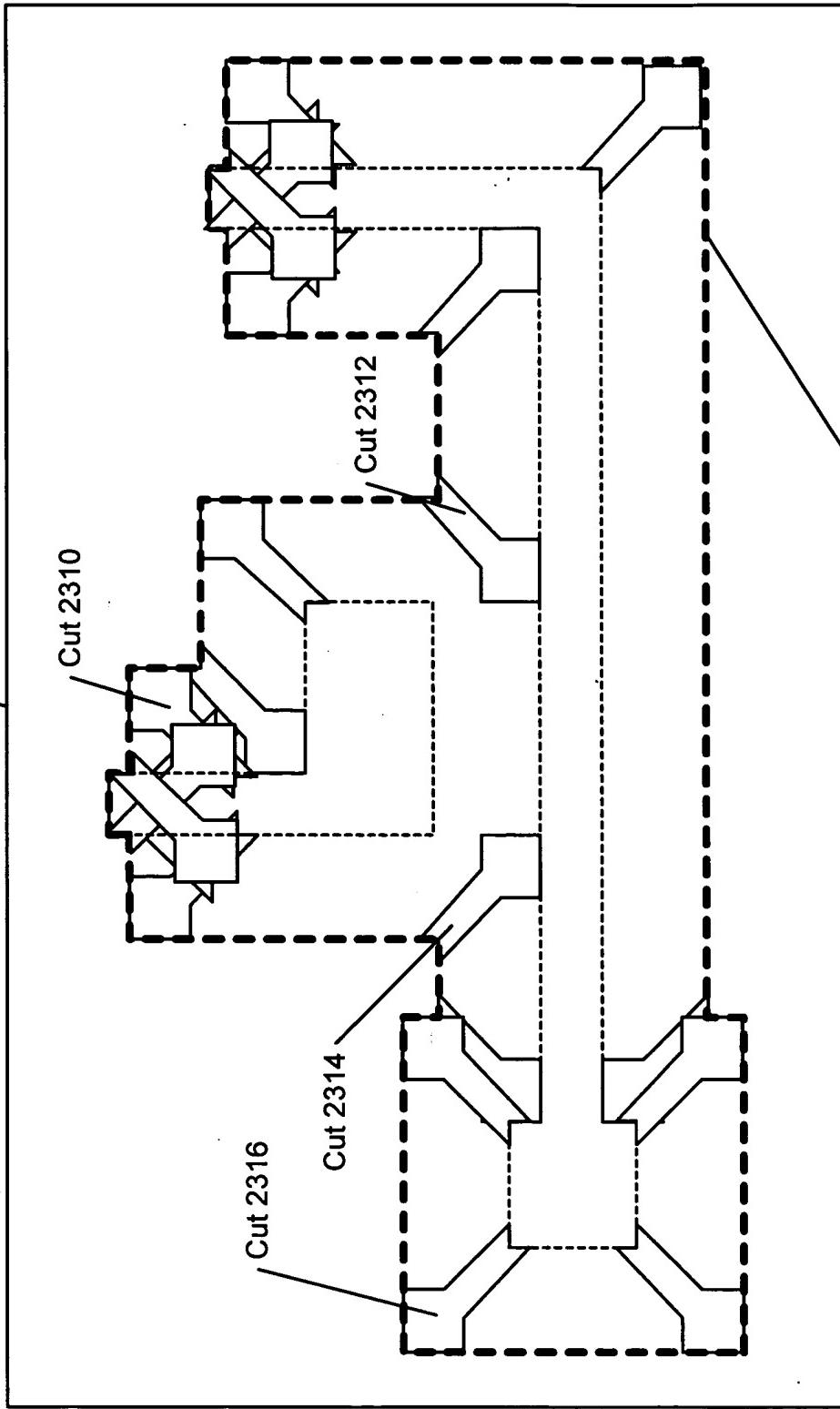
Cut 2312

Cut 2314

Cut 2316

Boundary
2230

FIG. 23



Layout 2400

Cut 2410

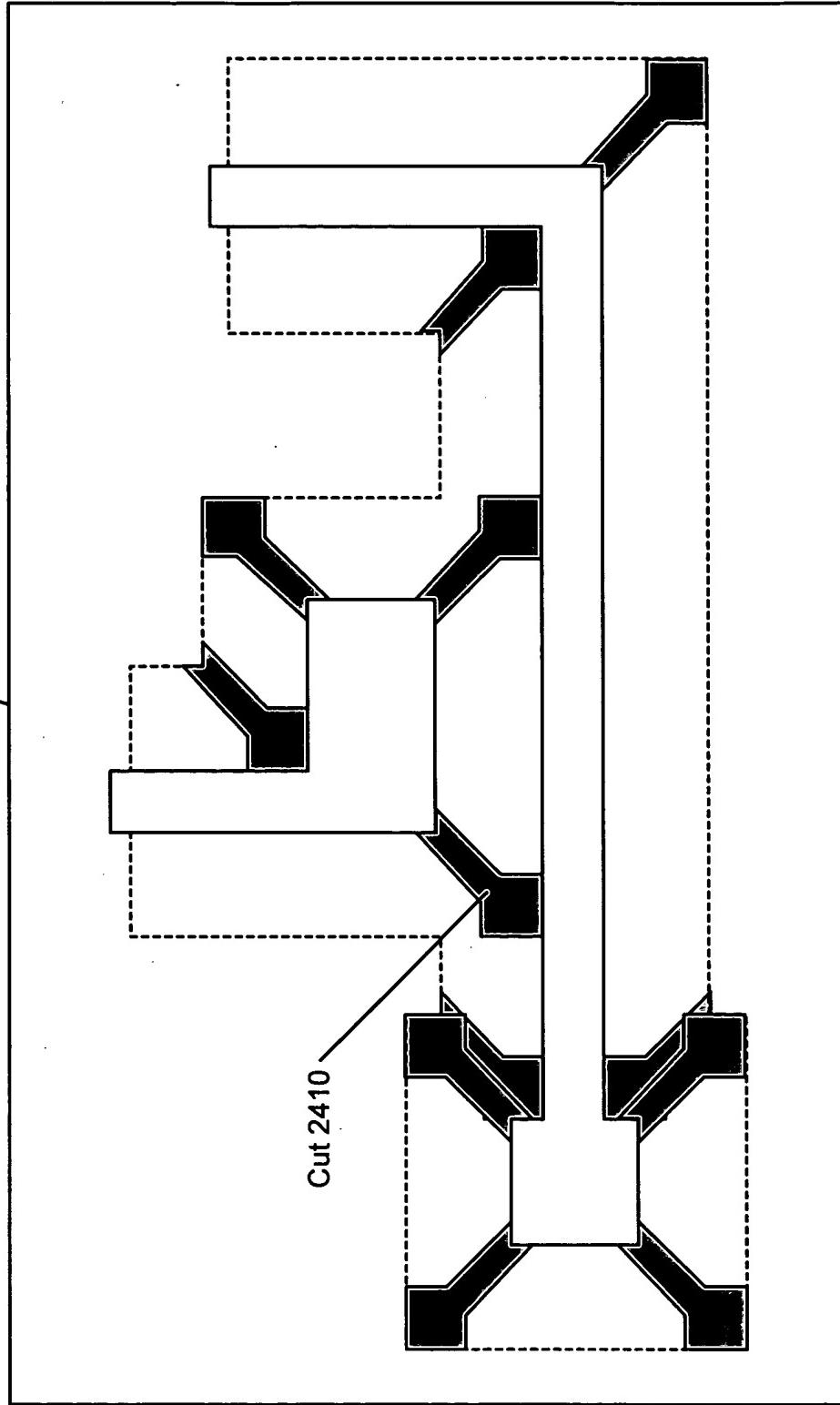


FIG. 24

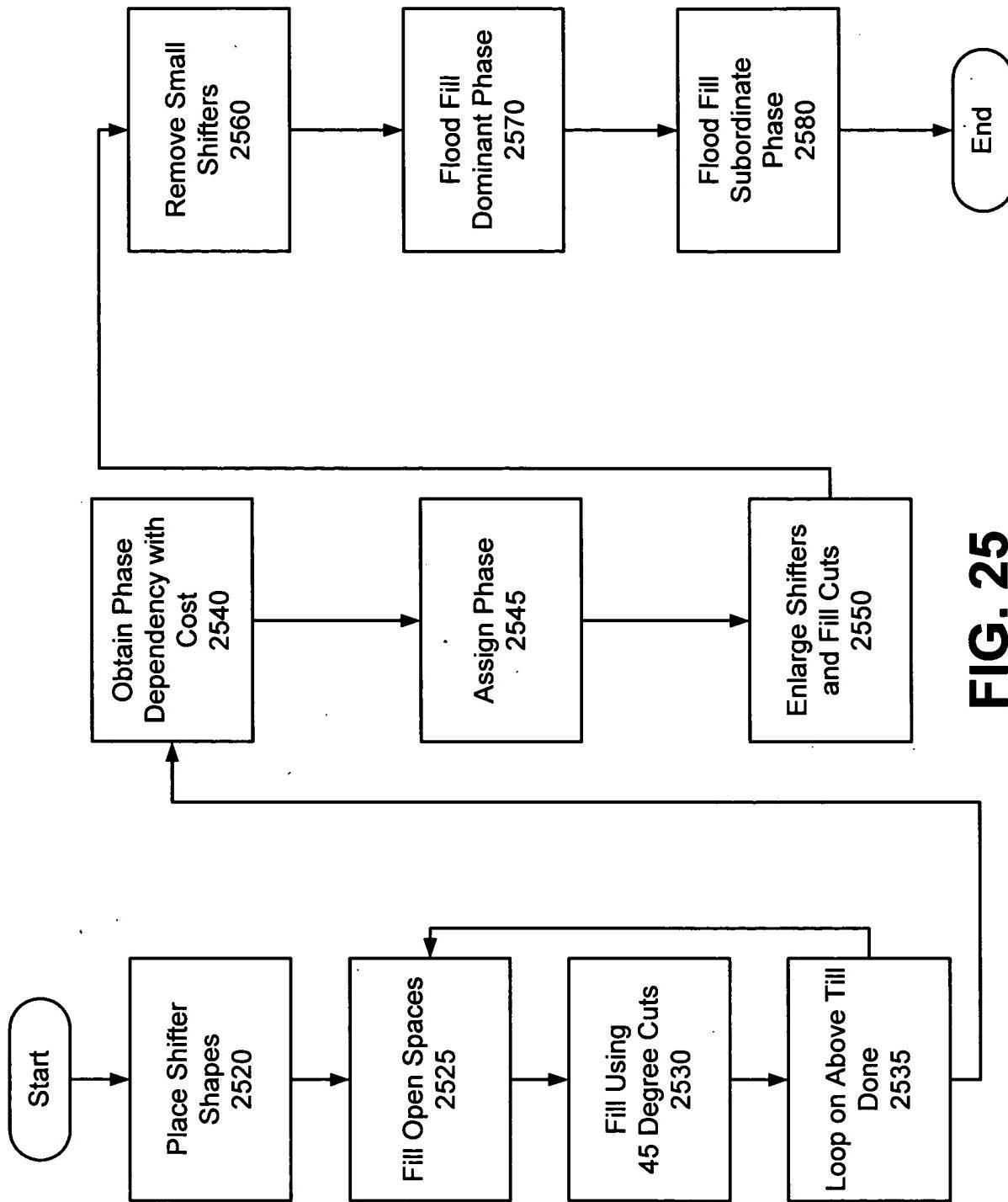


FIG. 25

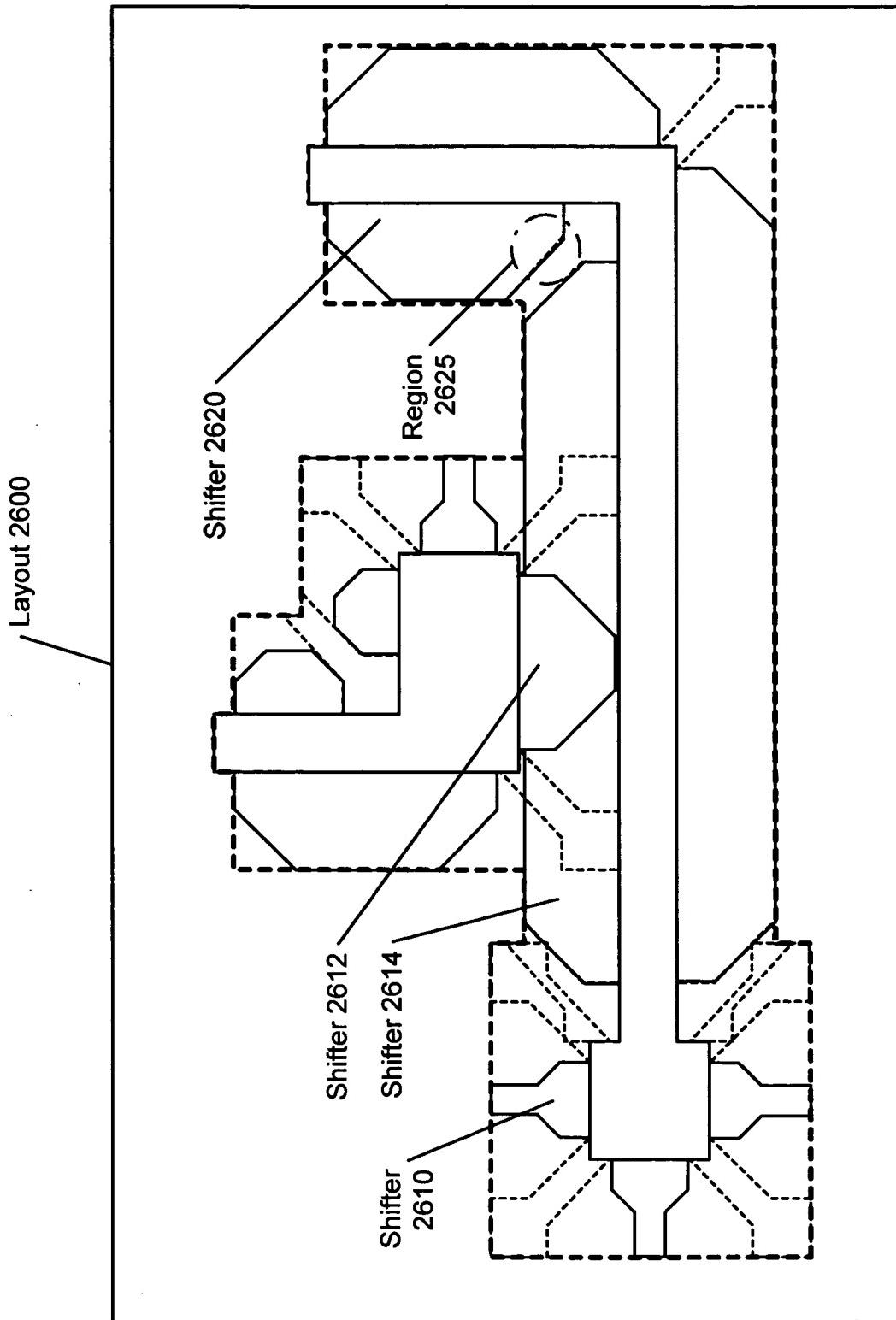


FIG. 26

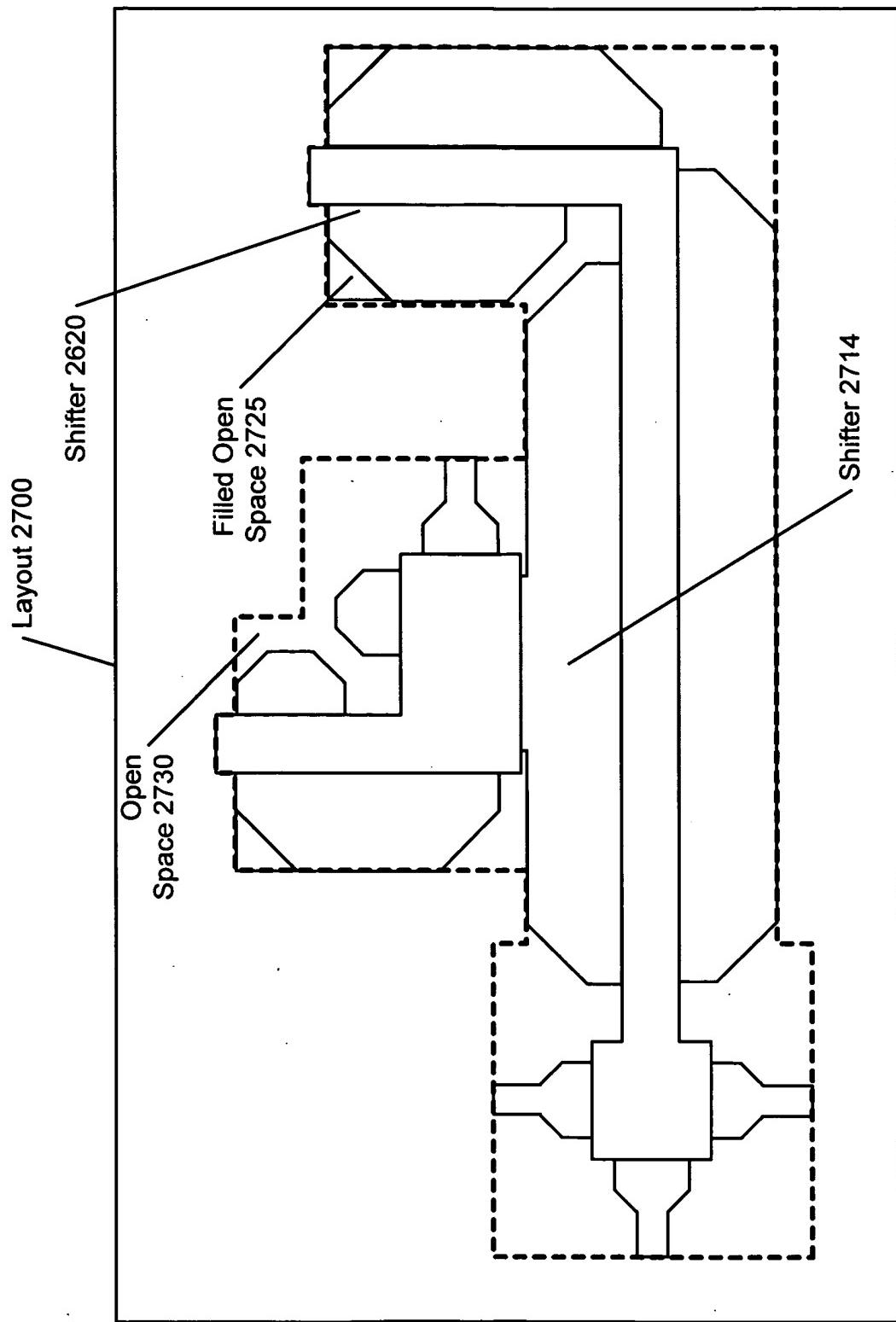


FIG. 27

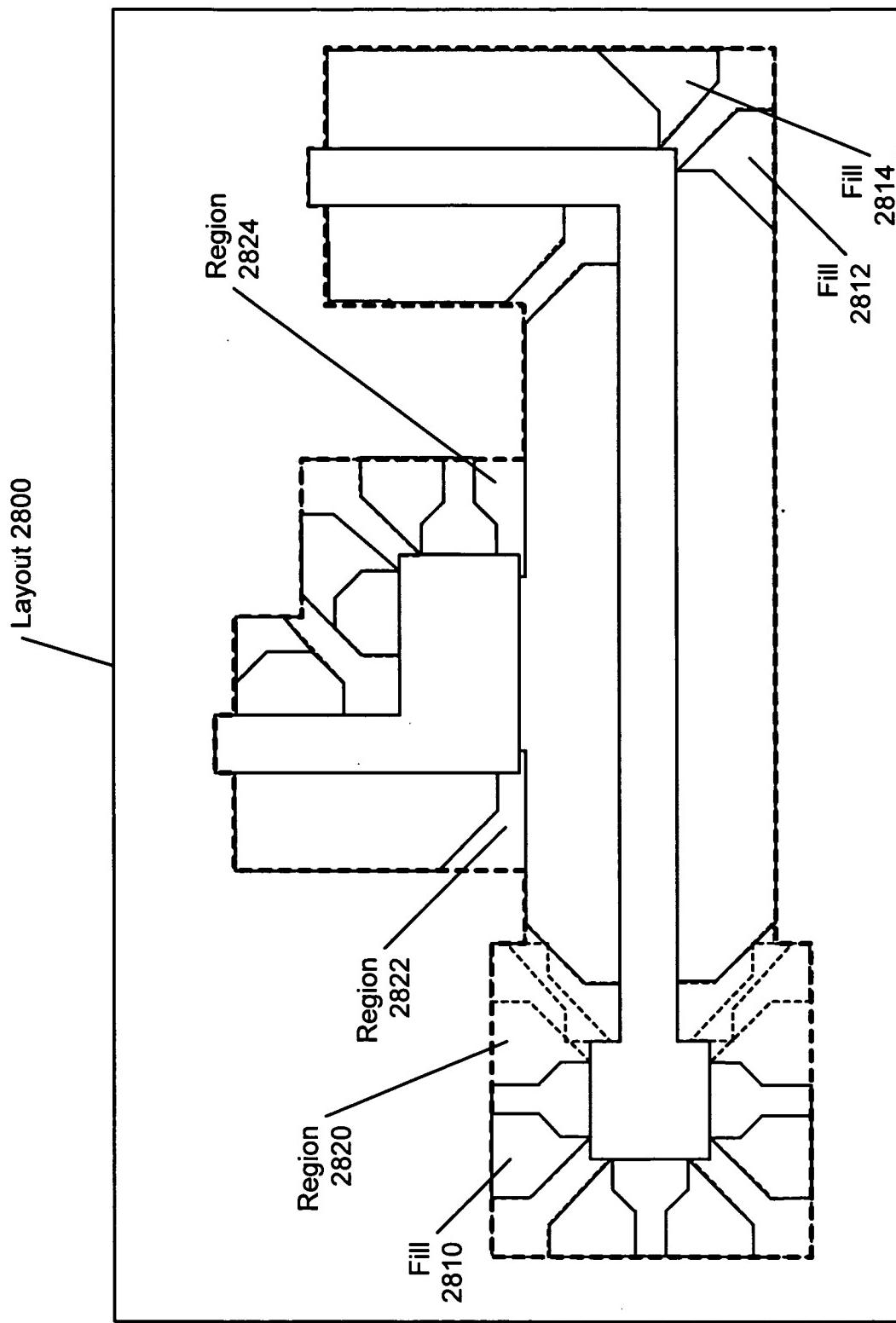


FIG. 28

Layout 2900

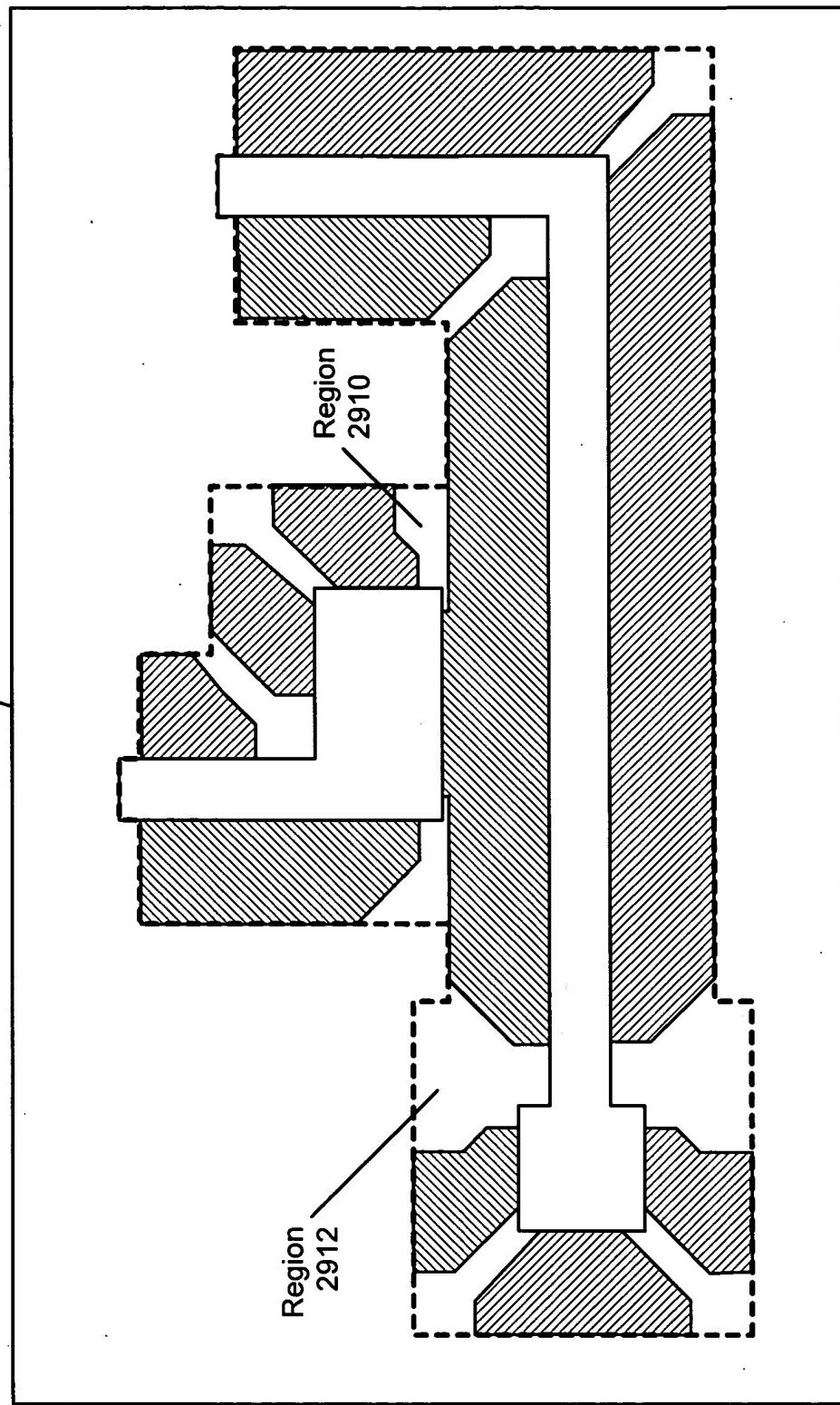


FIG. 29

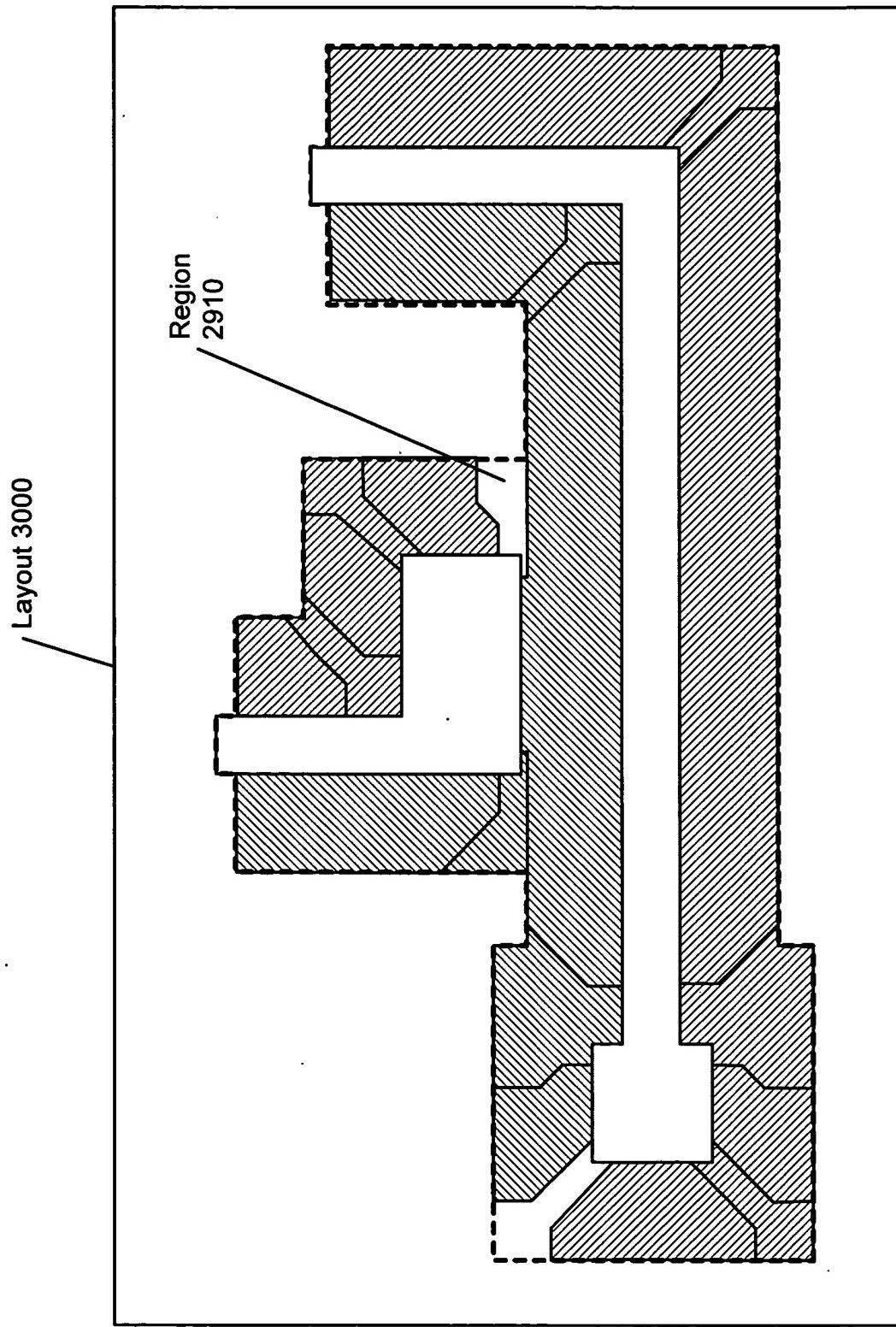


FIG. 30

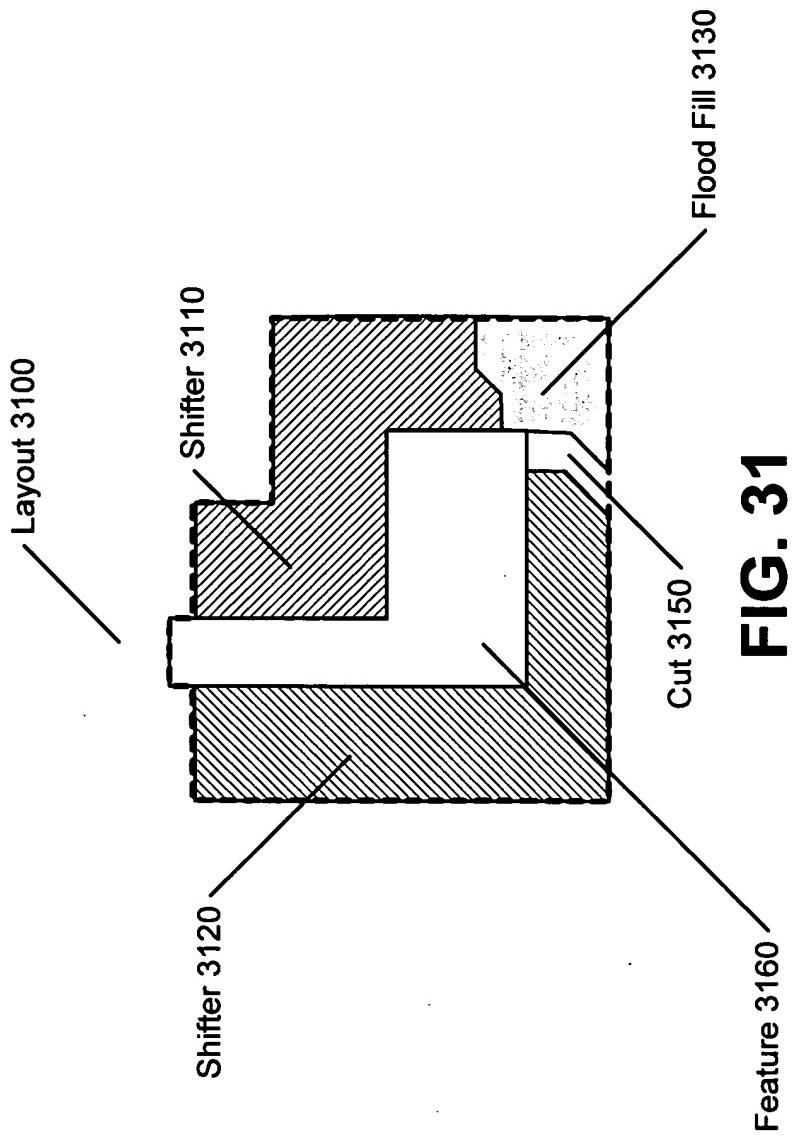


FIG. 31

Inventors: Michel Cote et al.

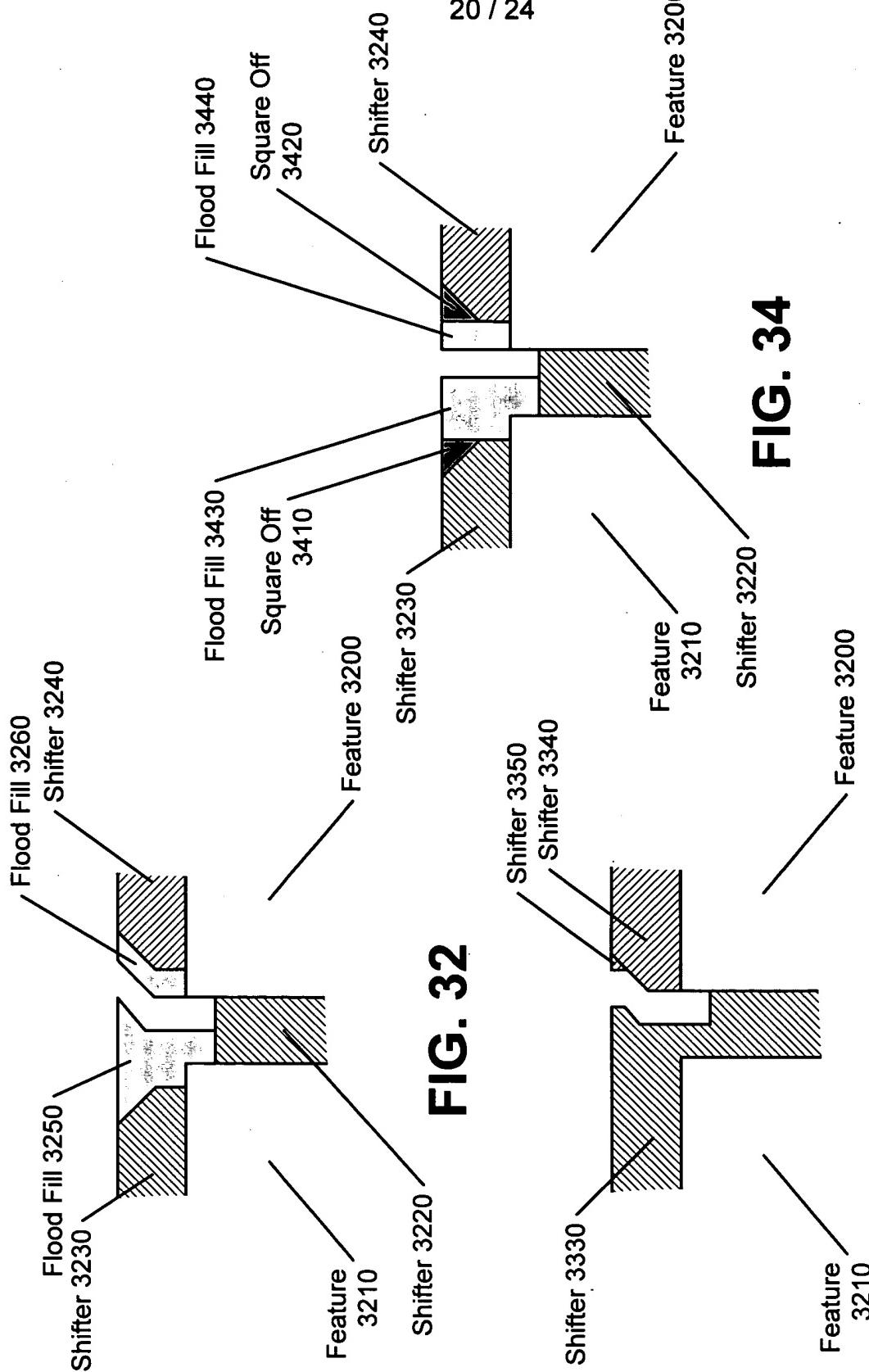
Title: Design and Layout of Phase Shifting Photolithographic

Masks

Application No. _____

Attorney Docket No. NMTI 1002-27

20 / 24



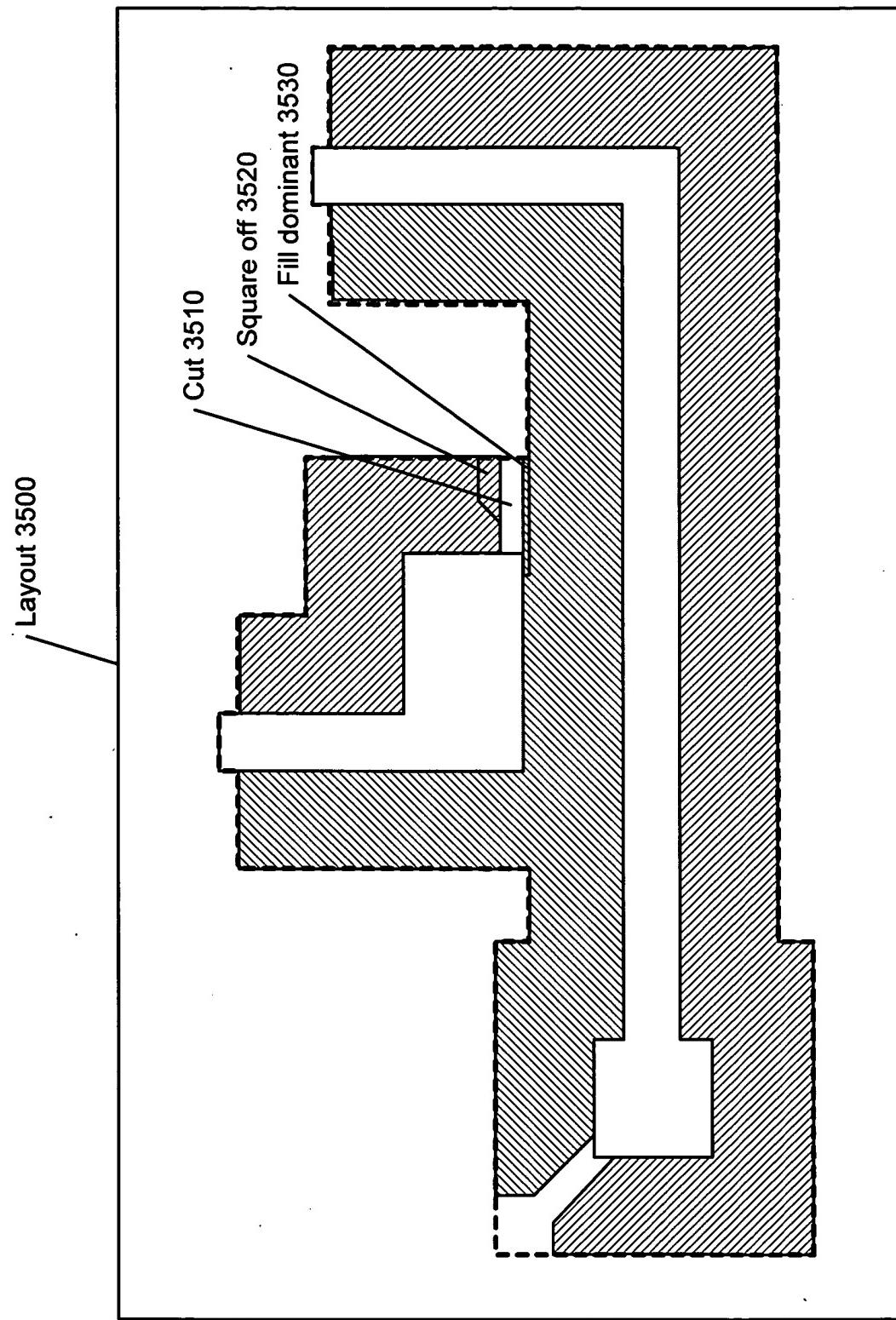


FIG. 35

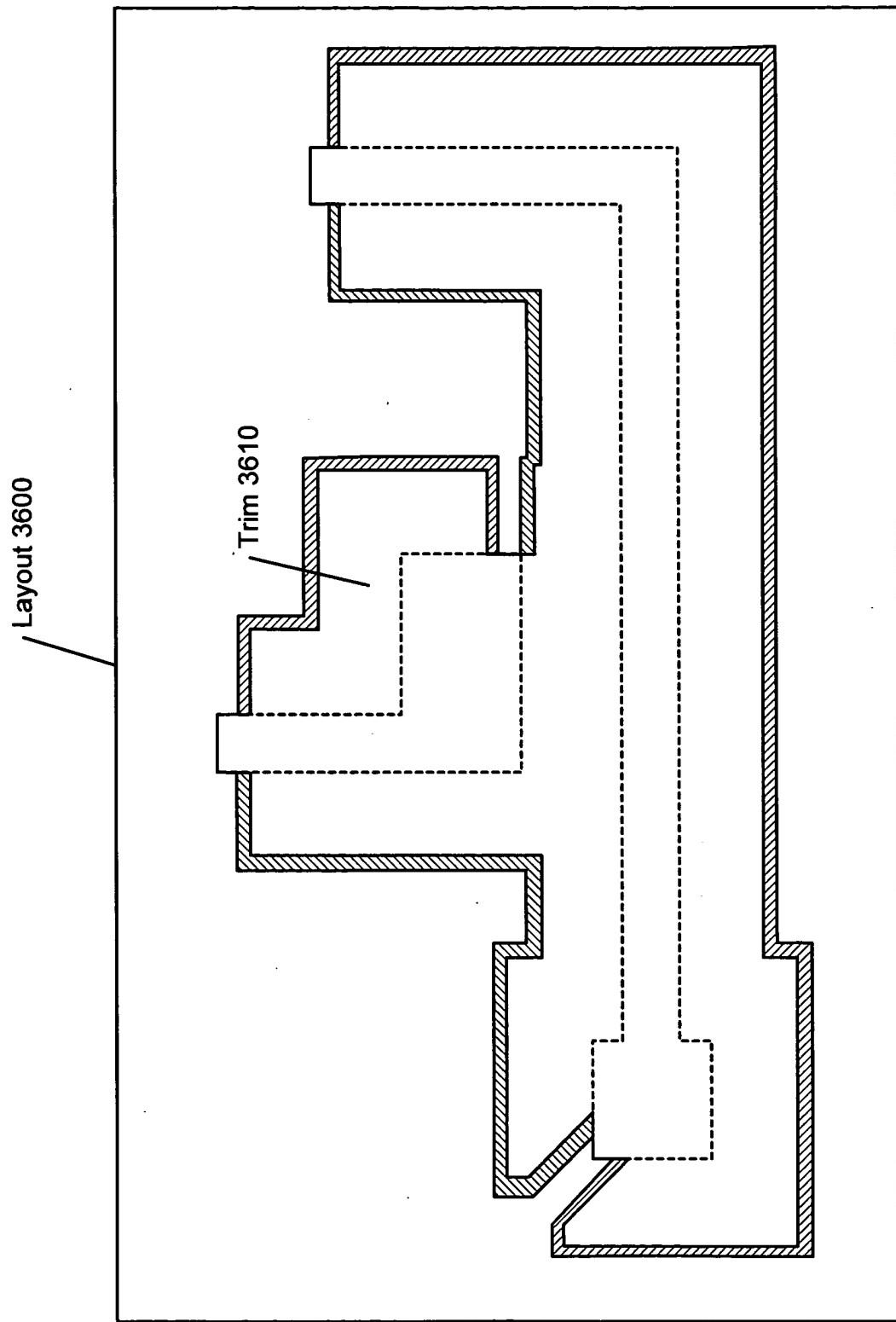
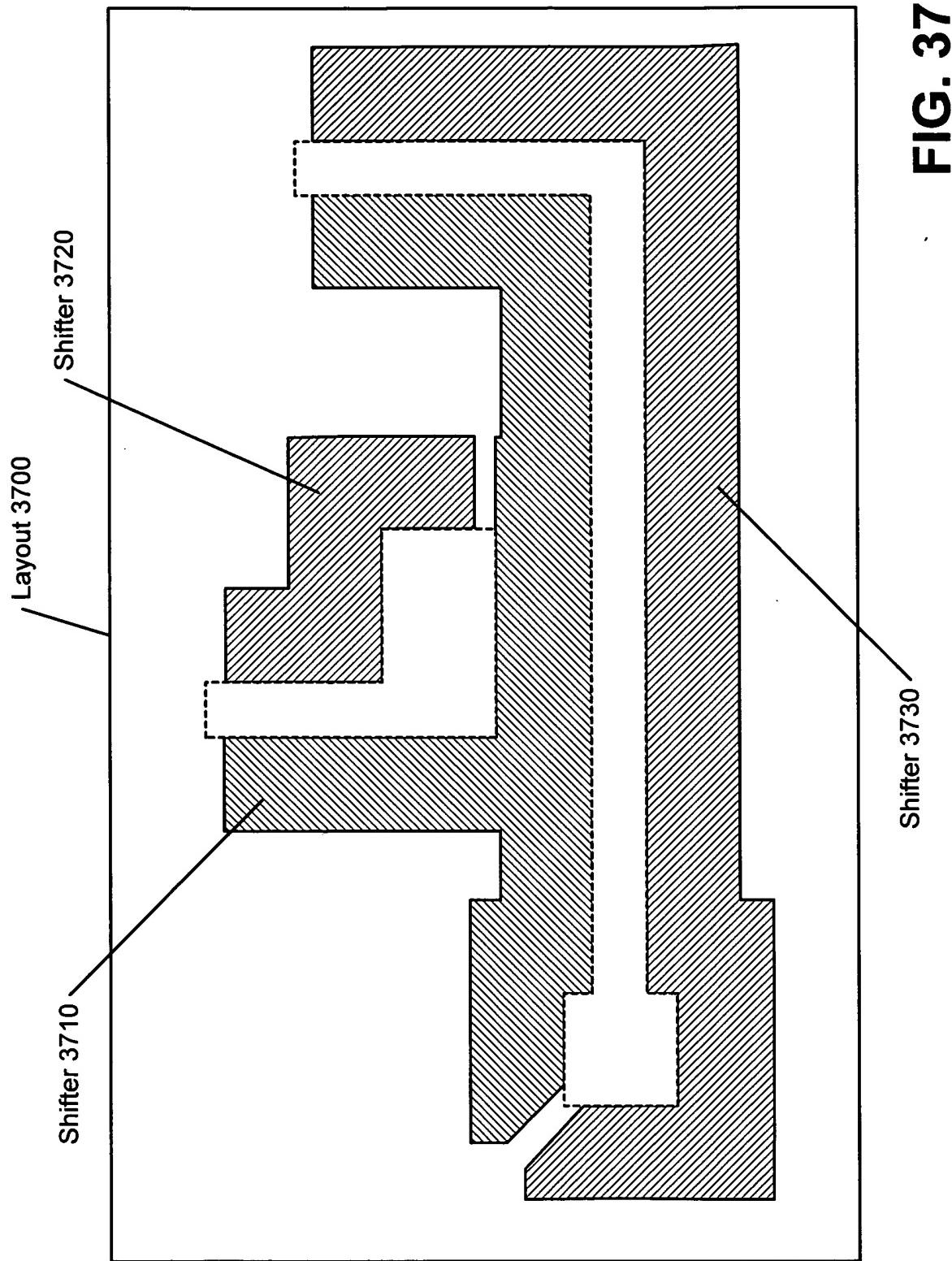


FIG. 36



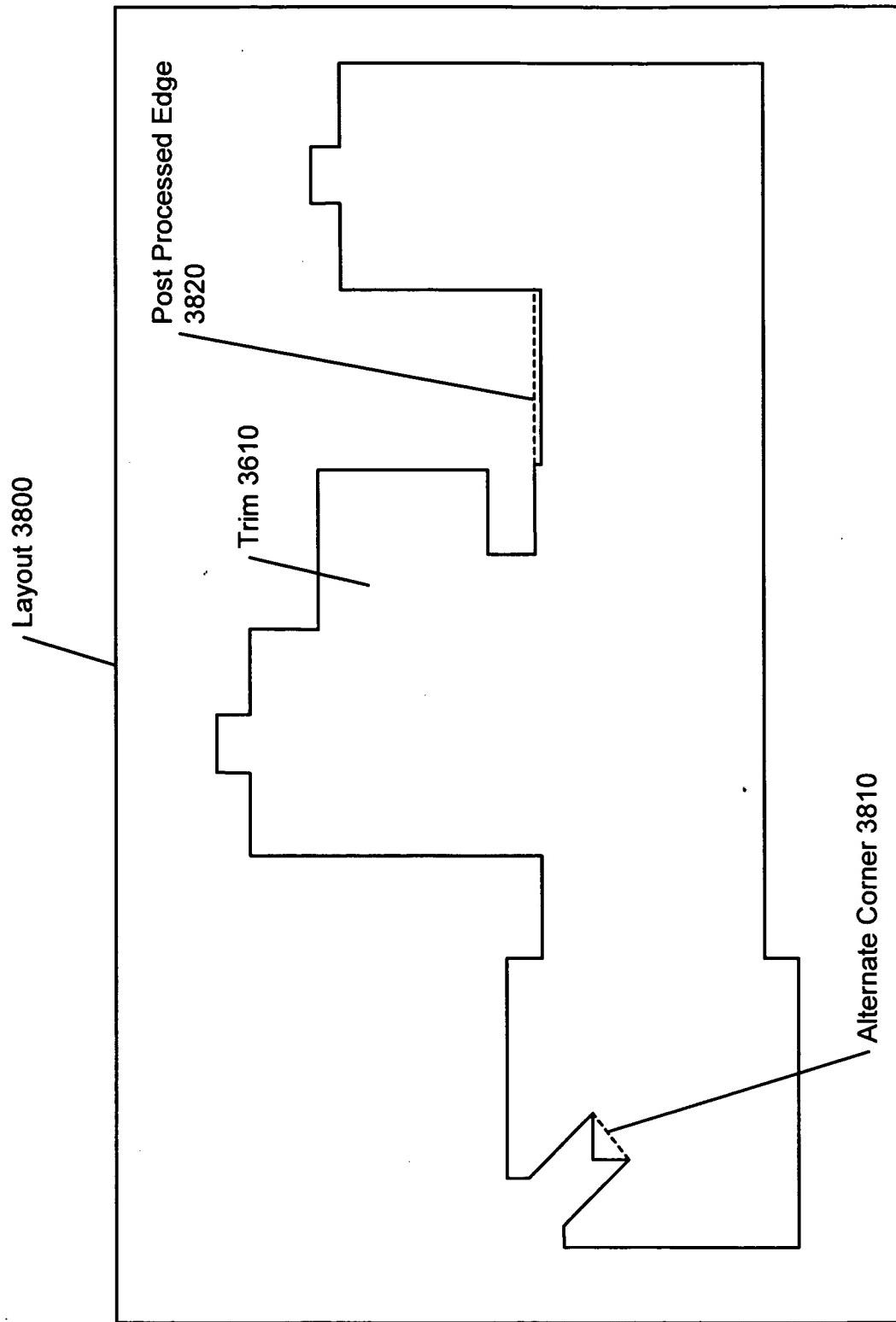


FIG. 38